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Docket Number 50-346

10CFR50.90

License Number NPF-3

Serial Number 2947

May 19, 2003

United States Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555-0001

Subject: Davis-Besse Nuclear Power Station
License Amendment Application to Revise Technical Specification 3/4.7.1.7, "Motor Driven Feedwater Pump System" to Correct the Safety-Grade Designation of the Motor Driven Feedwater Pump Flow Indication in Surveillance Requirement 4.7.1.7.e.2 (License Amendment Request No. 03-0001)

Ladies and Gentlemen:

Pursuant to 10 CFR 50.90, the following amendment is requested for the Davis-Besse Nuclear Power Station, Unit 1 (DBNPS): Revise Technical Specification (TS) Surveillance Requirement (SR) 4.7.1.7, Motor Driven Feedwater Pump System, to correct the requirement that safety grade flow indication be used to satisfy SR 4.7.1.7.e.2. The Motor Driven Feedwater Pump System, including the flow indication upstream of the pump test flow line tie-in, is not safety-grade. Enclosure 1 to this letter contains the technical justification for these proposed changes and the proposed no significant hazards consideration determination.

Approval of the proposed amendment is requested by October 31, 2003. Once approved, the amendment will be implemented within 120 days.

A001

The proposed changes have been reviewed by the DBNPS Station Review Board and Company Nuclear Review Board.

Should you have any questions or require additional information, please contact Mr. Patrick J. McCloskey, Manager - Regulatory Affairs, at (419) 321-8450.

Very truly yours,

EJS

Enclosures

cc: J. E. Dyer, Regional Administrator, NRC Region III
J. B. Hopkins, NRC/NRR Senior Project Manager
D. J. Shipley, Executive Director, Ohio Emergency Management Agency, State of Ohio (NRC Liaison)
C. S. Thomas, NRC Region III, DB-1 Senior Resident Inspector
Utility Radiological Safety Board

APPLICATION FOR AMENDMENT

TO FACILITY OPERATING LICENSE NPF-3

DAVIS-BESSE NUCLEAR POWER STATION

UNIT NUMBER 1

Attached is License Amendment Request 03-0001 that requests changes to the Davis-Besse Nuclear Power Station Unit Number 1, Facility Operating License Number NPF-3.

I declare under penalty of perjury that I am authorized by the FirstEnergy Nuclear Operating Company to make this request and the foregoing is true and correct.

Executed on: 5/19/03

By: _____
Lew W. Myers, ~~Chief~~ Operating Officer

Docket Number 50-346
License Number NPF-3
Serial Number 2947
Enclosure 1

DAVIS-BESSE NUCLEAR POWER STATION
EVALUATION
FOR
LICENSE AMENDMENT REQUEST NUMBER 03-0001

(14 pages follow)

DAVIS-BESSE NUCLEAR POWER STATION
EVALUATION
FOR
LICENSE AMENDMENT REQUEST NUMBER 03-0001

Subject: Revise Technical Specification (TS) Surveillance Requirement (SR) 4.7.1.7, "Motor Driven Feedwater Pump System" to Correct the Safety-Grade Designation of the Motor Driven Feedwater Pump Flow Indication in Surveillance Requirement 4.7.1.7.e.2.

1.0 DESCRIPTION

This letter is a request to amend the Davis-Besse Nuclear Power Station, Unit Number 1 Facility Operating License Number NPF-3.

The proposed change would revise the Operating License Technical Specification (TS) Surveillance Requirement (SR) 4.7.1.7, "Motor Driven Feedwater Pump System," to correct the designation for the non-safety grade flow indication utilized following any modification or repair to the Motor Driven Feedwater Pump System upstream of the Motor Driven Feedwater Pump test flow line tie-in. Specifically, the change would revise the requirement from "Safety Grade Flow Indication" to "flow indication." The requirement that this flow indication be "safety grade" was inadvertently requested to be added by the license amendment request approved as License Amendment 193.

2.0 PROPOSED CHANGE

The proposed change is shown on the marked-up TS page 3/4 7-12c in Attachment 1.

The change being proposed would revise the following TS requirement:

- Revise TS SR 4.7.1.7.e.2, "Motor Driven Feedwater Pump System," which states:

  "e. After any modification or repair to the Motor Driven Feedwater Pump System that could affect the system's capability to deliver water from the Condensate Storage Tanks to the Auxiliary Feedwater System, the affected flow path shall be demonstrated available as follows:

  1. .
     .

  2. If the modification or repair is upstream of the Motor Driven Feedwater Pump test flow line tie-in, the Motor Driven Feedwater Pump shall pump water from the Condensate Storage Tanks to the test flow line and the flow path availability will be verified by Motor Driven Feedwater Pump Safety Grade Flow Indication."

to read (changes in *italics*):

"2. If the modification or repair is upstream of the Motor Driven Feedwater Pump test flow line tie-in, the Motor Driven Feedwater Pump shall pump water from the Condensate Storage Tanks to the test flow line and the flow path availability will be verified by Motor Driven Feedwater Pump *flow indication*."

In summary, the proposed change would revise the Operating License Technical Specification (TS) Surveillance Requirement (SR) 4.7.1.7 "Motor Driven Feedwater Pump System" to correct the designation for the non-safety grade flow indication utilized following any modification or repair to the Motor Driven Feedwater Pump System upstream of the Motor Driven Feedwater Pump test flow line tie-in.

No associated change to the Technical Specification Bases is being made.

3.0 BACKGROUND

The proposed change affects the requirement for the Motor Driven Feedwater Pump (MDFP) System. The MDFP System is described in DBNPS Updated Safety Analysis Report (USAR) Section 9.2.8, "Motor Driven Feedwater Pump." The MDFP System is designed to provide a backup supply of feedwater to the steam generator in the event of a total loss of both safety-grade auxiliary feedwater and main feedwater. The MDFP System also provides feedwater to the steam generators during normal plant startup and shutdown. The MDFP System is non-safety related. However, the MDFP System provides a diverse means of supplying auxiliary feedwater to the steam generators and thus functions as a backup to the nuclear safety related auxiliary feedwater (AFW) system.

SR 4.7.1.7.e.2 demonstrates the availability of the flowpath from the condensate storage tanks (CST) to the test flow line tie-in following any modification or repair activity upstream of the test flow line tie-in that could affect the MDFP System's capability to deliver water from the CST to the AFW system. The requirement that safety-grade flow indication be utilized to satisfy SR 4.7.1.7.e.2 was added in error by License Amendment 193. Prior to License Amendment 193, the safety classification of flow indication was not specified.

4.0 TECHNICAL ANALYSIS

The purpose of SR 4.7.1.7.e.2 is to demonstrate the availability of the flow path from the Condensate Storage Tanks (CST) to the Auxiliary Feedwater System (AFW) following any modification or repair that could affect the MDFP System's capability to deliver water from the CST to the AFW System. SR 4.7.1.7.e.2 currently requires the flow indication used to demonstrate flow availability be safety grade. However, the MDFP System is not safety grade nor has it ever been required to meet the safety grade qualifications. The available non-safety grade flow indication (FI5876) is sufficient to demonstrate flow path availability.

The requirement in the Technical Specifications (TS) prior to TS Amendment 193 did not require the use of Safety Grade Flow Indication. TS Amendment 193 changed the TS to clarify several TS requirements for operation of the Auxiliary Feedwater System and the MDFP System in conformance with the DBNPS design. However, this change to SR 4.7.1.7.e.2 was made in error. It should be noted that no modification or repair activity has been identified as having been performed upstream of the MDFP test line tie-in since the implementation of Amendment

193, which would have required performance of SR 4.7.1.7.e.2. The proposed correction will have no impact on any USAR accident analysis.

Section 50.2 of the Title 10 Code of Federal Regulations defines safety-related structures, systems and components to be those structures, systems and components that are relied upon to remain functional during and following design basis events to assure:

(1) The integrity of the reactor coolant pressure boundary
(2) The capability to shut down the reactor and maintain it in a safe shutdown condition; or
(3) The capability to prevent or mitigate the consequences of accidents which could result in potential offsite exposures comparable to the applicable guideline exposures set forth in §50.34(a)(1) or §100.11 of this chapter, as applicable.

The MDFP System, including the associated flow indication instrumentation referred to in SR 4.7.1.7.e.2, is not required to remain functional during and following design basis events. The non-safety grade MDFP System flow indication is sufficient to demonstrate flow path availability and revised SR 4.7.1.7.e will remain sufficient to assure system operability following system modification or repair. Therefore, the proposed change will have no adverse effect on nuclear safety.

5.0 REGULATORY SAFETY ANALYSIS

5.1 No Significant Hazards Consideration

The proposed change would revise the Davis-Besse Nuclear Power Station Operating License Technical Specification (TS) Surveillance Requirement (SR) 4.7.1.7, "Motor Driven Feedwater Pump System," to correct the designation for the non-safety grade flow indication utilized following any modification or repair to the Motor Driven Feedwater Pump System upstream of the Motor Driven Feedwater Pump test flow line tie-in. Specifically, the change would revise the requirement from "Safety Grade Flow Indication" to "flow indication."

An evaluation has been performed to determine whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

   Response: No.

   The proposed change corrects a post modification and repair Surveillance Requirement for the Motor Driven Feedwater Pump System. This surveillance is not an initiator to any accident previously evaluated.

Consequently, the probability of an accident previously evaluated is not significantly increased. The Technical Specifications continue to require the MDFP System to be operable and capable of performing its design function. As a result, the consequences of any accident previously evaluated are not significantly affected. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

   Response: No.

   The proposed correction does not involve a physical alteration of the plant (no new or different type of equipment will be installed) or a change in the methods governing normal plant operation. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

   Response: No.

   The proposed correction does not result in a significant reduction in the margin of safety. The corrected Surveillance Requirement continues to ensure that the Motor Driven Feedwater Pump System can perform its required function. Thus, appropriate equipment continues to be tested in a manner that provides confidence that the equipment can perform its assumed function. Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above, it is concluded that the proposed amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

5.2 Applicable Regulatory Requirements/Criteria

10 CFR 50.36(c)(3) contains requirements for content of technical specifications surveillance requirements. The change to Technical Specification (TS) Surveillance Requirement (SR) 4.7.1.7.e.2 is consistent with the requirements of 10 CFR 50.36(c)(3). The revised surveillance requirement will continue to assure that necessary quality of the Motor Driven Feedwater Pump System is maintained and that Limiting Condition for Operation 3.7.1.7 will continue to be met.

In conclusion, based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

6.0 ENVIRONMENTAL CONSIDERATION

The proposed amendment would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

7.0 REFERENCES

1. DBNPS Operating License NPF-3, Appendix A Technical Specifications through Amendment 253.

2. DBNPS Updated Safety Analysis Report through Revision 23.

3. Code of Federal Regulations, Title 10.

4. "Amendment No. 193 to Facility Operating License No. NPF-3-Davis-Besse Nuclear Power Station, Unit No. 1 (TAC No. M89364)," dated October 18, 1994.

8.0 ATTACHMENTS

1. Proposed Mark-Up Of Technical Specification Pages

2. Proposed Retyped Technical Specification Pages

3. Technical Specification Bases Pages

LAR 03-0001
Attachment 1

PROPOSED MARK-UP
OF
TECHNICAL SPECIFICATION PAGES

(3 pages follow)

INFORMATION ONLY

PLANT SYSTEMS

MOTOR DRIVEN FEEDWATER PUMP SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.1.7 The Motor Driven Feedwater Pump and associated flow paths to the Auxiliary Feedwater System shall be OPERABLE.

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

With the Motor Drive Feedwater Pump or its associated flow paths to the Auxiliary Feedwater System inoperable, restore to OPERABLE status within 72 hours or be in HOT SHUTDOWN within the next 12 hours.

SURVEILLANCE REQUIREMENTS

4.7.1.7 The required Motor Driven Feedwater Pump and flow paths to the Auxiliary Feedwater System shall be demonstrated OPERABLE:

a. Deleted

b. At least once per 31 days by:

1. When in MODE 1 with RATED THERMAL POWER greater than 40%, verifying that each manual valve in the Motor Driven Feedwater Pump suction and discharge lines that affect the system's capability to deliver water to the steam generators is locked in its proper position.

2. When in MODE 1 with RATED THERMAL POWER greater than 40%, verifying that each power operated valve in the flow path is in its correct position.

INFORMATION ONLY

SURVEILLANCE REQUIREMENTS (Continued)

3. When in MODE 1 at RATED THERMAL POWER equal to or less than 40% or when in MODES 2 or 3, verifying that each valve (manual or power operated) in the Motor Driven Feedwater Pump flow path is able to be positioned locally for delivering flow to the Auxiliary Feedwater System.

(Ability is demonstrated by verifying the presence of handwheels for all manual valves and the presence of either handwheels or available power supply for motor operated valves.)

c. At least once per 92 days and prior to entry into MODE 3 from MODE 4 (if not performed in the past 92 days) by:*

1. Verifying proper operation of each power operated and automatic valve in the Motor Driven Feedwater Pump flow path to the Auxiliary Feedwater System.

2. Verifying the Motor Driven Feedwater Pump starts from the Control Room. **

3. Verifying proper operation of the Motor Driven Feedwater Pump.**

d. At least once each REFUELING INTERVAL by:

1. Verifying that there is a flow path between the Motor Driven Feedwater Pump System and the Auxiliary Feedwater System by pumping water from the Condensate Storage Tanks to the steam generators. The flow path to the steam generators shall be verified prior to entering MODE 3 from MODE 4 by either steam generator level change or Auxiliary Feedwater Safety Grade Flow Indication. Verification of Motor Driven Feedwater Pump System flow capacity is not required.

* If the Motor Driven Feedwater Pump cannot be tested within the time period specified, due to being aligned to the Main Feedwater System, the Surveillance Requirement shall be met within 72 hours after the Motor Driven Feedwater Pump has been aligned to the Auxiliary Feedwater System for 1 hour.

** When conducting tests of the Motor Driven Feedwater Pump System in MODE 1 greater than 40% RATED THERMAL POWER which require local manual realignment of valves that make the system inoperable, both auxiliary feedwater pumps and their associated flow paths shall be OPERABLE per Specification 3.7.1.2 during the performance of this surveillance. If one auxiliary feedwater pump or flow path is inoperable, a dedicated individual shall be stationed at the realigned Motor Driven Feedwater Pump System's valves (in communication with the control room) able to restore the valves to normal system OPERABLE status.

2. Verifying proper operation of the Motor Driven Feedwater Pump lube oil interlocks.

3. Verifying proper operation of manual valves by shifting the Motor Driven Feedwater Pump between the Main Feedwater System and the Auxiliary Feedwater System.

e. After any modification or repair to the Motor Driven Feedwater Pump System that could affect the system's capability to deliver water from the Condensate Storage Tanks to the Auxiliary Feedwater System, the affected flow path shall be demonstrated available as follows:*

1. If the modification or repair is in the Auxiliary Feedwater flow path downstream of the Motor Driven Feedwater Pump test flow line tie-in, the Motor Driven Feedwater Pump shall pump water from the Condensate Storage Tanks to the Auxiliary Feedwater System and the flow path availability will be verified by either steam generator level change or Auxiliary Feedwater Safety Grade Flow Indication.

2. If the modification or repair is upstream of the Motor Driven Feedwater Pump test flow line tie-in, the Motor Driven Feedwater Pump shall pump water from the Condensate Storage Tanks to the test flow line and the flow path availability will be verified by Motor Driven Feedwater Pump ~~Safety Grade Flow Indication~~flow indication.

f. Following each extended COLD SHUTDOWN (greater than 30 days in MODE 5), by:

1. Verifying that there is a flow path between the Motor Driven Feedwater System and the Auxiliary Feedwater System by pumping water from the Condensate Storage Tanks to the steam generators. The flow path to the steam generators shall be verified prior to entering MODE 3 from MODE 4 by either steam generator level change or Auxiliary Feedwater Safety Grade Flow Indication. Verification of Motor Driven Feedwater Pump flow capacity is not required.

* This surveillance testing shall be performed prior to entering MODE 3 from MODE 4 if the modification is made in MODES 4, 5, or 6. Verification of the Motor Driven Feedwater Pump flow capacity is not required.

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Attachment 2

PROPOSED RETYPED
TECHNICAL SPECIFICATION PAGES

(1 page follows)

SURVEILLANCE REQUIREMENTS (Continued)

2. Verifying proper operation of the Motor Driven Feedwater Pump lube oil interlocks.

3. Verifying proper operation of manual valves by shifting the Motor Driven Feedwater Pump between the Main Feedwater System and the Auxiliary Feedwater System.

e. After any modification or repair to the Motor Driven Feedwater Pump System that could affect the system's capability to deliver water from the Condensate Storage Tanks to the Auxiliary Feedwater System, the affected flow path shall be demonstrated available as follows:*

1. If the modification or repair is in the Auxiliary Feedwater flow path downstream of the Motor Driven Feedwater Pump test flow line tie-in, the Motor Driven Feedwater Pump shall pump water from the Condensate Storage Tanks to the Auxiliary Feedwater System and the flow path availability will be verified by either steam generator level change or Auxiliary Feedwater Safety Grade Flow Indication.

2. If the modification or repair is upstream of the Motor Driven Feedwater Pump test flow line tie-in, the Motor Driven Feedwater Pump shall pump water from the Condensate Storage Tanks to the test flow line and the flow path availability will be verified by Motor Driven Feedwater Pump flow indication.

f. Following each extended COLD SHUTDOWN (greater than 30 days in MODE 5), by:

1. Verifying that there is a flow path between the Motor Driven Feedwater System and the Auxiliary Feedwater System by pumping water from the Condensate Storage Tanks to the steam generators. The flow path to the steam generators shall be verified prior to entering MODE 3 from MODE 4 by either steam generator level change or Auxiliary Feedwater Safety Grade Flow Indication. Verification of Motor Driven Feedwater Pump flow capacity is not required.

* This surveillance testing shall be performed prior to entering MODE 3 from MODE 4 if the modification is made in MODES 4, 5, or 6. Verification of the Motor Driven Feedwater Pump flow capacity is not required.

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Attachment 3

TECHNICAL SPECIFICATION BASES PAGES

(1 page follows)

Note: The Bases pages are provided for information only.

within the closure times of the surveillance requirements are consistent with the assumptions used in the safety analyses.

3/4.7.1.6 SECONDARY WATER CHEMISTRY - Deleted

3/4.7.1.7 MOTOR DRIVEN FEEDWATER PUMP SYSTEM

The OPERABILITY of the Motor Driven Feedwater Pump System ensures that the Reactor Coolant System can be cooled down from normal operating conditions in the event of the total loss of Main Feedwater and Auxiliary Feedwater Pumps.

The Motor Driven Feedwater Pump System must be capable of providing feedwater flow to each steam generator in order to be OPERABLE.

The Motor Driven Feedwater Pump flow capability ensures that adequate feedwater flow is available to remove Decay Heat and reduce the Reactor Coolant System temperature to where the Decay Heat System may be placed into operation.

When conducting tests of the Motor Driven Feedwater Pump System in MODE 1 at greater than 40% RATED THERMAL POWER which requires local manual realignment of valves which make the system inoperable, a dedicated individual shall be stationed at the realigned train's valves, in communication with the control room, able to restore the valves to normal system OPERABLE status. However, it is not required to have this dedicated individual stationed if both trains of the Auxiliary Feedwater System are OPERABLE pursuant to Technical Specification 3/4.7.1.2 because two sources of auxiliary feedwater to the steam generators are OPERABLE. In either situation, the Motor Driven Feedwater Pump System with the local manual realigned valves is inoperable and the Limiting Condition for Operation ACTION must be followed.

When at 40% RATED THERMAL POWER or less and in MODES 1, 2, or 3, the Motor Driven Feedwater Pump System may be aligned to provide a flow path from the Deaerator Storage Tank through the Motor Driven Feedwater Pump to the Main Feedwater System. During this Motor Driven Feedwater Pump mode of operation, a flow path from the Condensate Storage Tanks through the Motor Driven Feedwater Pump to the Auxiliary Feedwater System shall be maintained with the ability for manual positioning of valves such that the flow path can be established. The ability for local, manual operation is demonstrated by verifying the presence of the handwheels for all manual valves and the presence of either handwheels or available power supply for motor operated valves.

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Serial Number 2947
Enclosure 2

COMMITMENT LIST

THE FOLLOWING LIST IDENTIFIES THOSE ACTIONS COMMITTED TO BY THE DAVIS-BESSE NUCLEAR POWER STATION (DBNPS) IN THIS DOCUMENT. ANY OTHER ACTIONS DISCUSSED IN THE SUBMITTAL REPRESENT INTENDED OR PLANNED ACTIONS BY THE DBNPS. THEY ARE DESCRIBED ONLY FOR INFORMATION AND ARE NOT REGULATORY COMMITMENTS. PLEASE NOTIFY THE MANAGER – REGULATORY AFFAIRS (419-321-8450) AT THE DBNPS OF ANY QUESTIONS REGARDING THIS DOCUMENT OR ANY ASSOCIATED REGULATORY COMMITMENTS.

COMMITMENTS	DUE DATE
None	N/A